

P a t e n t   c l a i m s

1.

An illumination box (1) for true, reproducible colour reproduction of an object, comprising side walls (2), a top plate (3) and a bottom plate (4), wherein between the top plate (3) and the bottom plate (4) there is provided a light diaphragm (5) which divides the illumination box (1) into a light chamber (L) above the light diaphragm (5) and an object chamber (O) beneath the light diaphragm (5), which light diaphragm (5) admits and diffuses light from a plurality of light sources (6) arranged in the light chamber (L), characterised in that the light diaphragm (5) is <sup>proximal to</sup> attached to an essentially light-impenetrable screening frame (7) adjacent to the side walls (2), with the plurality of light sources (6) distributed along the side walls (2) at a distance from the side walls (2) and from the screening frame (7) such that an area (8) for placement of the object is screened from essentially all direct light from the plurality of light sources (6), and that an aperture (9) is provided in the object chamber (O) for observation of the object.

2.

An illumination box according to claim 1, characterised by being essentially closed to external light.

3.

An illumination box according to one of the preceding claims, characterised in that the light diaphragm (5) is arranged essentially parallel to the bottom plate (4).

4.

An illumination box according to one or more of the preceding claims, characterised in that the aperture (9) is in the form of a hole in a central area of the light diaphragm (5) for photographing the object using a camera (10) located on the top plate (3), and that there are also provided light-impenetrable, non-reflective means (11) which form a closed channel between the lens aperture (12) of the camera (10) and the hole in the light diaphragm (5).

5.

An illumination box according to one or more of the preceding claims, characterised in that the plurality of light sources (6) is in the form of a plurality of fluorescent tubes, preferably of the type with the specifications 55W, about 5800 Kelvin.

6.

An illumination box according to one or more of the preceding claims, characterised in that the bottom plate (4) in the object chamber (O) is provided with a drawer (13) for insertion and withdrawal of the object.

7.

An illumination box according to one or more of the preceding claims, characterised in that the inside of the top plate (3) and the bottom plate (4) is matt black, and that the inside of the side walls (2) is white or black.

8.

An illumination box according to one or more of claims 4-7, characterised in that the aperture and shutter values of the camera (10) are not altered from image to image, and that the CCD chip of the camera is kept at a stable temperature so that RGB values are not changed during exposure.

9.

An illumination box according to one or more of claims 5-8, characterised in that a sleeve-shaped shade (16) of diffuser material surrounds each of the plurality of fluorescent tubes (6).

10.

An illumination box according to one or more of claims 5-9, characterised in that the number of fluorescent tubes (6) is four.

